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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,485	11/20/2003	Yasuyuki Momoi	520.43276X00	6677

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EXAMINER	
NGUYEN, VI X	
ART UNIT	PAPER NUMBER
3731	

MAIL DATE	DELIVERY MODE
04/14/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,485	MOMOI ET AL.	
	Examiner	Art Unit	
	VICTOR X. NGUYEN	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the RCE filed on 2/23/2010.

Claims 1, 3-5 are pending in this present application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended independent claim 1 now recites, "means for calculating setting position and direction of said laser emitting means from the emit angle of the laser beam and a laser beam emitting position that is measured by said three-dimensional position measuring means". It is unclear where this limitation is supported in the original disclosure. Therefore, it appears that the amended claim is not properly supported by the original disclosure.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-5 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Sanjay-Gopal et al US 6,187,018 in view of Vicci et al US 7,305,319.

Claim 1: Sanjay-Gopal et al disclose a position indicating means 90 for indicating a position and a direction of a surgical tool, said position indicating means comprising a pair of laser beam emitting means 90a, 90b, figure 2c for emitting respective laser beams that intersect in a plane-like manner towards a surgical field; a three-dimensional position measuring means 24 for measuring a position and a direction of said surgical field and also the position and the direction of said surgical tool; a control unit 30 for controlling operation of said position indicating means and said three-dimensional position measuring means, wherein said position indicating means and said three- dimensional position measuring means being fixed on a common base (or is fixed on an elongated head 22c), so that relative positional relationship there-between is constant; and wherein said direction for said surgical tool is given in a form of an intersection line (see col. 5, lines 65-67).

Sanjay-Gopal et al are silent regarding how to calculate setting position and direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position.

Vicci et al teach how to calculate setting position and direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position (see Vicci claim 13g-h and claim 18c and claim 48c-j).

It would have been obvious to one skilled in the art at the time the invention to provide a position measuring apparatus of Sanjay-Gopal with how to calculate setting position and

direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position as taught by Vicci in order to simultaneously control the motion of and tracking the device in three dimensions and to minimize the error.

Claims 3-4: Sanjay-Gopal et al disclose the position measuring apparatus 90 is held on a stand 22, which is changeable in its position and direction by being movable while keeping the relative positional relationship between the position indicating means and the three-dimensional position measuring means 24, and wherein said position measuring apparatus is held by an arm (fig. 2a), the arm extending from a ceiling and being changeable in a position and a direction by being movable while keeping the relative positional relationship between the position indicating means and the three-dimensional position measuring means 24.

Claim 5: Sanjay-Gopal et al disclose the position measuring apparatus 24 is used for indicating a position and a direction of a surgical tool during a surgical operation.

Claims 1, 5 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Cosman US 6,405,072 in view of Vicci et al US 7,305,319.

Claim 1: Cosman discloses a position indicating means 17, 18 for indicating a position and a direction of a surgical tool, said position indicating means comprising a pair of laser beam emitting means (LED emitters 20, 21, see col. 4, lines 39-42) for emitting respective laser beams that intersect in a plane-like manner towards a surgical field; a three-dimensional position measuring means (the area of element C1, col. 4, line 43) for measuring a position and a direction of said surgical field and also the position and the direction of said surgical tool; a control unit 34 for controlling operation of said position indicating means and said three-

dimensional position measuring means, wherein said position indicating means and said three-dimensional position measuring means being fixed on a frame 6, fig. 1 or being fixed on a common base so that relative positional relationship there-between is constant; and wherein said direction for said surgical tool is given in a form of an intersection line (see col.19, lines 9-19).

Cosman is silent regarding how to calculate setting position and direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position.

Vicci et al teach how to calculate setting position and direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position (see Vicci claim 13g-h and claim 18c and claim 48c-j).

It would have been obvious to one skilled in the art at the time the invention to provide a position measuring apparatus of Sanjay-Gopal with how to calculate setting position and direction of laser emitting means and a laser emitting position that is measured by the three-dimensional position as taught by Vicci in order to simultaneously control the motion of and tracking the device in three dimensions and to minimize the error.

Claim 5: Cosman discloses the position measuring apparatus 17, 18 is used for indicating a position and a direction of a surgical tool during a surgical operation.

Response to Arguments

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTOR X. NGUYEN whose telephone number is (571)272-4699. The examiner can normally be reached on M-F (8-4.30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AnhTuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VN/
Examiner, Art Unit 3731
4/4/2010

/Gary Jackson/
Supervisory Patent Trainer
TC 3700
April 10, 2010